

Chapter 5: Markup & Markdown

Markup

Businesses buy products at a cost price and then markup the products to cover the expenses (overhead) of running the business and the desired profits. The sum of cost plus markup gives the selling price, as shown below. Markup is also referred to as margin or gross profit.

$$\begin{aligned}\text{Selling Price} &= \text{Cost} + \text{Markup} \\ S &= C + M\end{aligned}$$

Markup (since it includes expenses and profits) can be rewritten as follows:

$$\begin{aligned}\text{Markup} &= \text{Expenses} + \text{Profits} \\ M &= E + P\end{aligned}$$

Substituting the expression for markup into the selling price equation gives us:

$$\begin{aligned}\text{Selling Price} &= \text{Cost} + \text{Expenses} + \text{Profit} \\ S &= C + E + P\end{aligned}$$

Example 1:

Audiophile Records purchases CDs at a cost of \$12 each. Operating expenses of the business are 25% of the cost and the owner requires a profit of 15% of cost. How much is the markup on the CDs? What is the selling price?

(i) To find the markup, we use the information given about expenses and profit:

$$\begin{aligned}M &= E + P = (0.25 \times C) + (0.15 \times C) \\ M &= (0.25 \times \$12) + (0.15 \times \$12) \\ M &= 3 + 1.80 = \$4.80\end{aligned}$$

(ii) To find the selling price, we now add the markup of \$4.80 to the cost:

$$S = C + M = \$12 + \$4.80 = \$16.80 \text{ per CD}$$

Example 2:

Meteor Lights purchases disco balls for \$67.00 each. Operating expenses are 25% of the selling price and the owner requires a profit of 10% of the selling price. How much should the disco balls be sold for?

Operating expenses are 25% of the selling price, so $E = 0.25 \times S$. Profits are 10% of the selling price, so $P = 0.10 \times S$.

$$\begin{aligned}S &= C + 0.25S + 0.10S \\ S &= 67 + 0.35S\end{aligned}$$